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10/640,556	08/13/2003	Lee A. Shaw	SHAWS-032A	8344

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EXAMINER

ADDIE, RAYMOND W

ART UNIT	PAPER NUMBER
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3671

DATE MAILED: 06/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/640,556

Applicant(s)

SHAW ET AL.

Examiner

Raymond W. Addie

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21 and 22 is/are allowed.
- 6) ☒ Claim(s) 1-4,6-12,14-16 and 18-20 is/are rejected.
- 7) ☐ Claim(s) 5,13 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/20/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claims 1, 5, 14 are objected to because of the following informalities:

Claim 1, Ins. 5-11, the phrase "embed portion" should be --embedded portion--..

Claim 5, In. 2 the phrase "former alignment ribs" should be --pocket former alignment ribs-- for clarity.

Appropriate correction is required.

Claim 14 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 12 recites "the plate portion is sized and configured to be complementary to the interior compartment". Whereas claim 14 recites "the dowel plate is sized and configured to be complementary to the interior compartment".

Since the "plate" of claim 12 is the "dowel plate" of claim 14; the limitations are identical.

Claim 21 In. 9, the phrase "positioning the pocket former adjacent to the concrete form" should be --releasably attaching the pocket former adjacent to the concrete form-- in order to clarify how the concrete form is removed in a manner to permit the insertion of the dowel plate into the pocket former --releasably attached-- to the concrete form.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6, 8, 11, 12, 14, 15, 19 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 00/23653, reference to Kinnunen.

Kinnunen discloses a dowel system (5, 7, 8, 9); which is interposed between adjacent 1<sup>st</sup> and 2<sup>nd</sup> concrete slabs (1, 2) thus forming a joint. The dowel system comprising:

A dowel plate (5/6), in the form a circular dowel plate, spanning the width of the joint.

Said dowel plate (5/6) having a slidable portion (5) and an embedded portion (6); see

Figs. 4, 5; page 7. Ins. 18-29.

A pocket former (7) disposed within the 1<sup>st</sup> slab (1) and having a horizontally extending interior compartment with an open generally straight side and an arch-shaped

compartment perimeter extending therefrom. The straight side being aligned with the

joint, such that slidable portion (5) is at least partially surrounded by said pocket former

(7). Wherein the embedded portion is rigidly encapsulated in the 2<sup>nd</sup> slab (2) and the

slidable portion is slidably disposed within the pocket former such that the dowel plate

(5/6) permits relative horizontal movement of the 1<sup>st</sup> and 2<sup>nd</sup> slabs. Which restricting

relative vertical movement thereof. See Page 9, ln. 32-Page 10, ln. 4.

In regards to Claims 2, 3 Kinnunen discloses the pocket former (7) at least partially surrounds the slidable dowel portion (5), and as illustrated in Fig. 4 clearly shows the pocket former is sized and configured to be complimentary to the shape of the slidable dowel portion (5). Kinnunen further discloses a perimeter flange (3) receives and is connected to the slidable dowel portion (5). Such that the perimeter flange (3) is generally, vertically oriented with flared upper and lower flange portions configured for restricting horizontal movement of the pocket former within the 1<sup>st</sup> slab; while permitting horizontal movement of the dowel portion (5). Further it is clearly illustrated that the perimeter flange (3) extends around the pocket former perimeter. See Fig. 4; page 6, Ins. 25-34.

In regards to Claims 6, 8, 11 although Kinnunen does not disclose what the dowel plate is fabricated from, Kinnunen clearly discloses the dowel plate can be welded to the sheet metal flange (3). Hence it is inherent that the dowel plate is made from a weldable metal. Kinnunen further discloses the pocket former (7) is made from plastic. See page 7. What Kinnunen does not disclose is the use of a pocket former for receiving one side of the circular dowel plate (5). See page 7, Ins. 18-29.

However, Kerrels discloses a dowel system (54/52/40), which is interposed between adjacent 1<sup>st</sup> and 2<sup>nd</sup> concrete slabs (20, 22) thus forming a joint. The dowel system comprising:

A dowel plate (52) with an embed portion (59) and a slidable portion (51).

A pocket former (55) disposed within the 1<sup>st</sup> slab (20) and having a horizontally extending interior compartment with an open generally straight side and a compartment (56) for receiving dowel plate (52).

Wherein the embedded portion is rigidly encapsulated within the 2<sup>nd</sup> slab (22) and the slidable portion is slidably disposed within the pocket former (55) for relative horizontal movement and restricts relative vertical movement of the slabs (20, 22).

Further wherein the dowel plate (52) can be in the form of a single, flat plate (40) having at least one end slidably received in a pocket former (43). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the disc dowel system of Kinnunen, with a circular dowel plate assembly, as taught by Kerrels, in order to facilitate relative horizontal movement of the concrete slabs, to accommodate freeze/thaw induced expansion and contraction of the concrete slabs. Which is reasonably suggested by both Kinnunen and Kerrels.

In regards to Claim 12 Kinnunen discloses a disc dowel system with the intended use for installing a circular dowel plate (5/6) within a gap separating adjacent concrete slabs (1, 2). The dowel plate being generally rounded (see Figs. 4, 5); and having an embedded portion (6) and a slidable portion (5). See Page 7 in its entirety.

The disc dowel system comprising:

A positioner bracket (3), having a vertically disposed base flange (3) and horizontally disposed plate portion (5/6) extending therefrom, as by welding.

The vertically disposed base flange (3), providing a permanent form capable of being rigidly attachable to the concrete slab (2) via plate portion (6).

A pocket former (7) having an interior compartment with an open an open straight side and an arch-shaped compartment perimeter extending therefrom, thus providing a plastic part "which at least partly surrounds" the slidable dowel plate portion (5).

Wherein the plate portion (5) is sized and configured to be complementary to the interior compartment of the pocket former (7). Although Kinnunen does not disclose how the plastic pocket former (7) "at least partially surrounds" the metallic dowel plate (5/6); it is inherent, in light of the disclosure that the plate (5/6) is welded to the positioner bracket (3); that the plastic pocket former would have to slidably receivable on the positioner bracket (3) having the plate (5) welded thereto, at least "in the field", for the plastic pocket former to perform the intended function of permitting horizontal relative motion between the concrete slabs, while simultaneously preventing relative vertical motion of the concrete slabs (1, 2).

Further wherein although Kinnunen does not disclose forming the joint by use of a "removable concrete form", Kinnunen does provide a permanent concrete form in the use of the positioner bracket (3) that is not removed but rather rigidly attached to the concrete slab (2) after curing, thus providing a flexible joint between said slabs (1, 2), which is the intended function of the claimed structure. See pages 5-8 in there entirety.

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In regards to Claim 19 Kinnunen discloses the vertically disposed base flange (3) is provided with a plurality of holes (not shown) are sized to receive a faster (8) for facilitating rigid attachment of the positioner bracket (3) to the concrete slab (2).

See Page 8.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 7, 16, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/23653, reference to Kinnunen in view of Westcott # 2,181,005.

Kinnunen discloses a disc dowel system comprising a dowel plate, which can be circular or a segment thereof, and a pocket former; but does not disclose providing alignment ribs to the pocket former.

However, Westcott '005 teaches it is desirable to provide a concrete joint assembly (25, 26) with alignment ribs (32) mounted to the pocket former (26), such that said alignment ribs extend perpendicular to the direction of the joint. Wherein the dowel bar can have a circular, elliptical or rectangular cross-section.



Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the pocket former (7) of Kinnunen, with alignment ribs as taught by Westcott, in order to increase the bearing strength of the pocket former. See Westcott col. 3, ln. 73-col. 4, ln. 5.

4. Claims 9, 10, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/23653, reference to Kinnunen in view of IMM # 6,018,833.

Kinnunen discloses a disc dowel system for restricting vertical movement of adjacent concrete slabs, comprising a circular dowel plate made of metal and a pocket former made from plastic. Kinnunen does not disclose making the use of other materials. However, Imm teaches concrete reinforcement devices (10), which may be partially exposed to the ambient environment and partially encased in concrete, are advantageously made from metals, including stainless steel, carbon steel or other structural materials such as carbon fiber or fiberglass-reinforced plastics to accommodate harsh environments and corrosion. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to make the concrete disc dowel system of Kinnunen from corrosion resistant materials, as taught by Imm in order to prevent corrosion of the at least partially exposed system components. See Imm Col. 7, Ins. 42-col. 8, ln. 68.

***Allowable Subject Matter***


5. Claims 5, 13, 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. Claims 21, 22 are allowed.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yeoman # 2,096,702 discloses a dowel bar assembly.  
EP 1389648 A1 discloses a concrete joint assembly.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond W. Addie whose telephone number is 703 305-0135. The examiner can normally be reached Monday-Friday 8 AM-2 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 703 308-3870. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**Raymond Addie**  
**Patent Examiner**  
**Group 3600**

6/18/2004